Reviewer’s report

Title: Evaluation of cardiovascular disease burden and therapeutic goal attainment in US adults with chronic kidney disease: an analysis of National Health and Nutritional Examination Survey data, 2001-2010

Version: 4 Date: 11 April 2013

Reviewer: Delphine Tuot

Reviewer’s report:

Comments to the Editor and Authors

The revised manuscript submitted by Kuznik and colleagues provides a much stronger, clearer and focused discussion of the high burden of cardiovascular disease and low achievement of cardiovascular therapeutic goals in a nationally representative US population with chronic kidney disease. The authors have addressed all of my prior concerns. A few additional comments are listed below.

Minor Compulsory Revisions:

1. Methods: Current recommendations for BP and LDL-C goals were published in 2003 and 2004, respectively. Can the authors describe why they included NHANES participants from 2001-2002?

2. Discussion: As a limitation, it’s important to note that NHANES participants don’t all have routine medical care. Thus, the population cannot be considered a “medicalized” cohort.

3. Discussion: In the beginning of paragraph 3, please delete “As for hyperlipidemia”.

Discretionary Revisions:

1. Methods: The authors should consider mentioning in the methods section (bottom of page 7) that ACEi/ARB were included as antihypertensive medications. It is mentioned in a footnote of the table, but since these agents are often used for proteinuria reduction rather than for treatment for hypertension, it’s important to mention up front that they were included as anti-hypertensive medications.

2. Results: The results in Table 4 are mentioned verbatim in the text. Consider shortening the text considerably on age 13 and just referring readers to the appropriate table. This would help shorten a lengthy manuscript.

3. Discussion: The discussion is also relatively lengthy and could benefit from some additional focus. Consider the following suggestions:

   o Paragraph 1 could be shortened by deleting the sentence with the percentages. This detail has already been presented in the results section and does not need to be recounted.

   o The paragraph pertaining to the new KDIGO CKD staging guidelines (page 17)
is interesting, but is not relevant to the authors’ main point – that CV risk modification is suboptimal among patients with CKD. Consider deleting this paragraph.

- The cost-effectiveness paragraph could start with a topic sentence that states that there is a business case to be made for better CV risk modification among patients with CKD. The last sentence of this paragraph is not pertinent to this discussion, as the authors do not have any data about generic medication use in their population.

- Use of CKD-EPI is not a limitation of this manuscript and I would consider removing it from the limitations paragraph.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.